their introduction; it is, however, most essential, before opening them to the public, to submit them to severe and satisfactory tests; these tests have been various and frequent on those that have already been opened, and it may be safely affirmed, that in no case where Wrought Iron Box Lattice Girder Bridges have been duly proportioned and executed, has there been the least reason to doubt their security; they, furthermore, admit of being highly ornamental, and have, when erected, a most elegant, airy and light appearance.

I regret much that I have not been able to get a model prepared, as I had intended; it would have fully shown the construction, and enabled me to put it to a test, before this meeting.

I might here suggest that Prince's Bridge could be very easily widened by removing the present parapet and supporting the footpaths outside on a modification of the lattice girder, supported partly by brackets, this could be done at a very moderate cost, and be of infinite benefit to the public.

XIX.

THE TRANSLATION OF LANGUAGES.

BY WM. SYDNEY GIBBONS.

READ JUNE 7, 1855.

The short paper which I have now the honour to lay before the Institute embodies views which I have at former periods had occasion to set before my pupils. The tone is necessarily

somewhat didactic, this I should have been glad to have avoided as inappropriate to the present occasion, but, on reconsidering the subject, the course of requesting the indulgence of our members, appears to me to be preferable. It will not then, I trust, be deemed to imply any want of deference to the Institute, when a little of the Educator peeps out, and I employ, because they present themselves to me as the most suitable, phrases and illustrations that seem to savour of the class-room.

The remarks I have now to make were originally suggested by observation of the extreme poverty of most of the recognised translations of classic authors generally, and the English versions of many modern foreign writers. This remark applies especially to versified translations, in which violence is done to the spirit and verse of the original without any countervailing advantage being presented to the reader. Such a work is neither an English poem, nor a translation of the Classic; a certain imperative adherence to the style and manner of the author has served to cripple the translator, who has only thus far allowed himself to be guided by it, and has utterly disregarded the beauties everywhere apparent in the peculiar terms of phraseology, and in artistic selection of words from the synonyms at command. I trust that in the following remarks I may be able to justify this heretical condemnation of writers whose names have passed into the list of English Classics, and may support successfully my view that the most free translation is really the least so, and that the closest literal rendering will produce the boldest and most forcible translation.

The great end of translation is to convey into one language sentiments originally expressed in another. It is but too frequently the case that what is called a translation is little more than an original work composed on the basis of that professed to be translated. This observation is fully borne out by a perusal of the principal poetical translations (so called) of the Classics by some of our eminent writers, who have

in these works not only cramped their own powers, but failed to render the beauties of their originals. Attention to the following observations will remove many of the difficulties which commonly arise, and will lessen the risk of falling into the errors above-mentioned.

I. In order to convey fully and accurately the sense of the author, without loss of spirit and delicacy, other than must necessarily follow from a change of language (this deterioration may however be reduced to almost a nullity,) it is requisite to exercise the greatest care in the selection of words, so that the form of the classic sentence may be preserved, and the full force of expression arising from the use of particular idioms and words may be obtained without any other change than the conversion of idiom, or rather inversion of sentence in deference to the idiom of another language.

A few remarks on the process by which this end is best accomplished may be admissible here; and I would deprecate the idea that this is common-place or that, because the terms are used in teaching, the process itself really forms a frequent part of education.

First, the words, when their syntactical relations are determined, should be rendered literally and in the classical form of sentence. The various radical significations of each of the words may then be tried and compared until the true sense of the author is discovered and is verified by the context. The bare sense having been thus obtained, the sentence as it stands in its rough purity may be gradually polished, by the change of order and the substitution of one synonym for another which is found to be more forcible or more consistent, until it assumes the aspect of elegant English. In doing this care must be exercised in the selection of synonyms, so that all the principal inflections may be rendered by similar forms in English, that all confusion of subject and object, &c., may be prevented, and the ideas contained in the original may be conveyed without any conversion of

phrase. And the possibility of construing the original, word by word, into the adopted translation, with only such modification as does not do violence to either the letter or the spirit of the author is the best test of the fidelity of a translation to the original, as the elegance of its construction as a whole is the best indication of the mastery attained over the language into which it is rendered. Nor is this so difficult as might be supposed, for, except in some peculiarly elliptical expressions, a judicious selection of the various admitted significations of words, and a careful survey of their derivation, added to a due observation of their syntactical relations, will enable the student to give the spirit and force of free English to a translation, which on close comparison with the text, seems to be, and is, purely literal. Indeed, it generally happens that a translation made on this plan and in pursuance of these instructions is more forcible and more poetic than what is commonly called a free rendering, in which the translator jumps at a supposed idea, and moulds it to his own taste, abandoning all attempt to give the style and weight of the author. In fact, a so called free translation is too frequently a substitution of the ideas as well as the words of the Translator for those of his Author: whereas the *analytic* and *synthetic* processes enable us to give a version which varies only in tongue from the text, and renders not only the ideas, but the actual words of the poet or orator into their etymological equivalent.

II. In order for the student to place himself in a position to effect the necessary modification of construction and selection of words, it is essential that he regard the two ruling principles of language, Etymology and Syntax.

Syntax, or the construction of sentences (συνταξις—συν,τασσω), shows the relations in which the words stand to each other, and, consequently, the expression of the idea, by displaying fully the arrangement of the materials by which it is expressed; and so gives the key both to the conception of the author and to the mode of setting it forth in another tongue.

Etymology, or the structure of words (ἐτυμολογια, ἐτυμος–ἐτεος ἐιμι, λογος) shows the power of each constituent of the sentence and its derivation, by a strict examination of which its radical or natural signification may be traced, and from which its acquired meaning may be deduced; and the means of finding a suitable and expressive synonym are at once provided.

In order, however, to attain this power, a minute attention to the details of Etymology is indispensable, as without it no certain knowledge of the identity of any word, nor any definite conclusion as to its origin, can be arrived at. Accurate observation of the accidence of words, or their peculiar inflections arising from their syntactical relations, is also essential to a right knowledge of the syntax of the sentence, and the consequent function and power of each word, as well as of the identity of the words themselves and of their significations as derived from their roots.

I shall not trespass on the time of the meeting by entering upon examples or by going farther into detail. Instances where the plan I advocate would have obviated all necessity for weakening the original by distorting the phrases to agree with our notions of idiom, notions that set at naught the true origin of idiom, viz. :—a concise and somewhat corrupt setting of an idea in words that have since become as obsolete as is now the legitimate sentence in which the sentiment could have been conveyed at the time the corruption first occurred: a careful analysis of such an idiom enables the student to refer each peculiar form of speech to its source, and then re-construct it in an analogous manner in his own language.

In the same manner rhetorical figures, tropes, and metastases may be re-produced with literal fidelity, and with scrupulous regard for the artistic beauty of the original idea.

I trust that I have now supported, as far as is possible within the limits of a single paper, the somewhat paradoxical proposition with which I started, viz. :—that the most free

translation (so called) is the most cramped, while the most literal rendering is the most bold, and faithful, and forcible.

XX.

THE MANUFACTURE OF SULPHURIC ACID AND STEARINE CANDLES.

BY A. K. SMITH, C.E., &c. &c.

READ JUNE 7, 1855.

It may seem somewhat strange that I should have chosen such a subject for a few brief observations to-night, and it does at first sight appear somewhat anomalous, that a gas engineer should recommend the establishment of a manufactory for the production of light other than gas. Still I feel certain that you will join with me in taking a more liberal view of the matter than the contracted one of advocating the introduction of one branch of manufacture at the expense of another. Personally interested as I am in coal gas and its manufacture, I fear no rival, well knowing that the £ s. d. test (independent of the convenience and safety of gas) will be the great champion in the cause.

In the moral, as in the physical world, the first mandate is equally applicable—"Let there be light"—and not only darkness but vice will be diminished. Implicitly believing in the assertion, I consider I am only doing my duty as a member of society, in pointing out to those who will not be in a po-